AMENDMENTS TO THE CLAIMS

1. (Original) A transformed plant, characterized in that it expresses at least one leghemoglobin.

2. (Currently amended) The transformed plant according to claim 1, characterized in that it comprises at least one sequence ~~No. 1~~ of SEQ ID NO: 1 coding for a leghemoglobin.

3. (Currently amended) The transformed plant according to claim 2, characterized in that it comprises a sequence which has approximately 70% identity with the sequence ~~No. 1~~ of SEQ ID NO: 1.

4. (Original) The transformed plant characterized in that it expresses at least one hemoglobin or at least one leghemoglobin and at least one hemoglobin.

5. (Currently amended) The transformed plant according to ~~any of claims 1 to 4~~ claim 4, characterized in that the leghemoglobin and/or hemoglobin is selected from plants from the group consisting of *Lupinus luteus*, *Glycine max*, *Medicago sativa*, *Medicago trunculata*, *Phaseolus vulgaris*, *Vicia faba*, *Pisum sativum*, *Vigna unguiculata*, *Lotus japonicus*, *Psophocarpus tetragonolobus*, *Sesbania rostrata*, *Casuarina glauca* and *Canvalaria lineata*.

6. (Currently amended) The transformed plant according to ~~any of claims 1 to 5~~ claim 4, characterized in that the leghemoglobin and/or hemoglobin is derived from Lotus japonicus and Arabidopsis thaliana.

7. (Currently amended) The transformed plant according to ~~any of claims 1 to 6~~ claim 4, characterized in that it expresses the leghemoglobin and/or hemoglobin in a storage-organ-specific manner.

8. (Currently amended) The transformed plant according to ~~any of claims 1 to 7~~ claim 4, characterized in that it expresses the at least one leghemoglobin and/or hemoglobin in a tuber-specific and/or seed-specific manner.

9. (Currently amended) The transformed plant according to ~~any of claims 4 to 8~~ claim 4, characterized in that it comprises at least one of the sequences ~~No.~~ of SEQ ID NOS: 3 and 5 coding for hemoglobin or at least one sequence ~~No. 1~~ of SEQ ID NO: 1 coding for a leghemoglobin and at least one of the sequences ~~No.~~ of SEQ ID NOS: 3 and 5 coding for hemoglobin.

10. (Currently amended) The transformed plant according to ~~any of claims 4 to 9~~ claim 4, characterized in that it comprises sequences with approximately 70% identity with the sequences ~~No.~~ of SEQ ID NOS: 1, 3 and/or 5.

11. (Currently amended) The transformed plant according to ~~any of the preceding claims~~ claim 4, characterized in that it produces starch and/or oil.

12. (Currently amended) The transformed plant according to ~~any of the preceding claims~~ claim 4, characterized in that it is a monocotyledonous crop plant, in particular of the species Gramineae.

13. (Currently amended) The transformed plant according to ~~any of claims 1 to 12~~ claim 4, characterized in that it is a dicotyledonous crop plant, in particular from the family Asteraceae, Brassicacea, Compositae, Cruciferae, Cucurbitaceae, Leguminosae, Rubiaceae, Solanaceae, Sterculiaceae, Theaceae or Umbelliferae.

14. (Original) The transformed plant according to claim 13, characterized in that it is potato, Arabidopsis thaliana, soybean or oilseed rape.

15. (Currently amended) A nucleotide sequence as shown in sequence ~~No. 1~~ of SEQ ID NO: 1, coding for leghemoglobin for use in a plant according to ~~any of claims 1 to 14~~ claim 4.

16. (Original) A gene structure comprising at least one nucleotide sequence according to claim 15.

17. (Currently amended) A vector comprising at least one or more nucleotide sequences according to claim 15 ~~or one or more gene structures according to claim 16.~~

18. (Currently amended) ~~The plant according to any of claims 1 to 14~~ A transformed plant comprising at least one gene structure according to claim 16.

19. (Currently amended) ~~The plant according to any of claims 1 to 14~~ A transformed plant comprising at least one vector according to claim 17.

20. (Currently amended) A nucleotide sequence as shown in the sequences ~~No.~~ of SEQ ID NOS: 3 and 5 coding for hemoglobin for use in a plant according to ~~any of claims 4 to 14~~ claim 4.

21. (Original) A gene structure comprising at least one nucleotide sequence according to claim 20.

22. (Currently amended) A vector comprising at least one or more nucleotide sequences according to claim 20 ~~or one or more gene structures according to claim 21~~.

23. (Currently amended) ~~The plant according to any of claims 4 to~~ A transformed plant comprising at least one gene structure according to claim 21.

24. (Currently amended) ~~The plant according to any of claims 1 to 14~~ A transformed plant comprising at least one vector according to ~~claim 24~~ claim 22.

25. (Original) A method for modifying the storage reserve content in plants, characterized in that it comprises transforming plants in such a way that they express at least one leghemoglobin.

26. (Currently amended) The method according to claim 25, characterized in that the plants are transformed in such a way that they comprise at least one sequence ~~No.~~ of SEQ ID NO: 1 coding for a leghemoglobin.

27. (Currently amended) The method according to claim 25 ~~or 26~~, characterized in that plants are transformed in such a way that they comprise a sequence with approximately 70% identity with the sequence ~~No. 1~~ of SEQ ID NO: 1.

28. (Original) A method for modifying the storage reserve content in plants, characterized in that it comprises transforming plants in such a way that they express at least hemoglobin or one leghemoglobin and at least one hemoglobin.

29. (Currently amended) The method according to ~~any of claims 25 to 28~~ claim 28, characterized in that the leghemoglobin and hemoglobin is selected from plants of the group consisting of *Arabidopsis thaliana*, *Lupinus luteus*, *Glycine max*, *Medicago sativa*, *Medicago trunculata*, *Phaseolus vulgaris*, *Vicia faba*, *Pisum sativum*, *Vigna unguiculata*, *Lotus japonicus*, *Psophocarpus tetragonolobus*, *Sesbania rostrata*, *Casuarina glauca* and *Canvalaria lineata*.

30. (Currently amended) The method according to ~~any of claims 25 to 29~~ claim 28, characterized in that the leghemoglobin and/or hemoglobin is derived from Lotus japonicus and Arabidopsis thaliana.

31. (Currently amended) The method according to ~~any of claims 25 to 30~~ claim 28, characterized in that the plants are transformed in such a way that they express the leghemoglobin and hemoglobin in a storage-organ-specific manner.

32. (Currently amended) The method according to ~~any of claims 25 to 31~~ claim 28, characterized in that the plants are transformed in such a way that they express the leghemoglobin and hemoglobin in a tuber-specific and/or seed-specific manner.

33. (Currently amended) The method according to ~~any of claims 25 to 32~~ claim 28, characterized in that the plants are transformed in such a way that they comprise at least one sequence ~~No.~~ of SEQ ID NOS: 3 and/or ~~No.~~ 5 coding for hemoglobin or at least one sequence ~~No. 1~~ of SEQ ID NO: 1 coding for a leghemoglobin and at least one sequence ~~No.~~ of SEQ ID NOS: 3 and/or 5 coding for hemoglobin.

34. (Currently amended) The method according to ~~any of the preceding claims 26 to 33~~ claim 28, characterized in that the plants are transformed in such a way that they comprise sequences with approximately 70% identity with one of the sequences ~~No.~~ of SEQ ID NOS: 1, 3 and/or 5.

35. (Currently amended) The method according to ~~any of claims 26 to 34~~ claim 28, characterized in that the plants are transformed in such a way that they produce starch and/or oil.

36. (Currently amended) The method according to ~~any of claims 26 to 35~~ claim 28, characterized in that monocotyledonous crop plants, in particular of the species Gramineae, are transformed.

37. (Currently amended) The method according to ~~any of the preceding claims 26 to 36~~ claim 28, characterized in that dicotyledonous crop plants, in particular from the family Asteraceae, Brassicacea, Compositae, Cruciferae, Cucurbitaceae, Leguminosae, Rubiaceae, Solanaceae, Sterculiaceae, Theaceae or Umbelliferae are transformed.

38. (Currently amended) The method according to ~~any of the preceding claims 26 to 37~~ claim 28, characterized in that potatoes, Arabidopsis thaliana, soybean or oilseed rape are transformed.

39. (Currently amended) ~~The method according to any of the preceding claims 26 to 38, wherein~~ A method for modifying the storage reserve content in plants, characterized in that at least one nucleotide sequence according to claim 15 is used for the transformation.

40. (Currently amended) ~~The method according to any of claims 25 to 39~~ A method for modifying the storage reserve content in plants, characterized in that at least one gene structure according to claim 16 is used for the transformation.

41. (Currently amended) ~~The method according to any of claims 25 to 40~~ A method for modifying the storage reserve content in plants, characterized in that at least one vector according to claim 17 is used for the transformation.

42. (Currently amended) ~~The method according to any of claims 28 to 41~~ A method for modifying the storage reserve content in plants, characterized in that at least one nucleotide sequence according to claim 20 is used for the transformation.

43. (Currently amended) ~~The method according to any of claims 28 to 42~~ A method for modifying the storage reserve content in plants, characterized in that at least one gene structure according to claim 21 is used for the transformation.

44. (Currently amended) ~~The method according to any of claims 28 to 43~~ A method for modifying the storage reserve content in plants, characterized in that at least one vector according to claim 22 is used for the transformation.

45. (Currently amended) ~~The use of~~ A method for the production of starch and/or oil, characterized in that a plant according to ~~any of claims 1 to 14, 18 or 19~~ claim 4 is used and the starch and/or oil is recovered ~~for the production of starch and/or oil~~.

46. (Canceled)